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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/538,219

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Herbert Friedrich Boerner

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

WILSON, MICHAEL H

ART UNIT

PAPER NUMBER

4145

MAIL DATE

DELIVERY MODE

12/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,219	Applicant(s) BOERNER, HERBERT FRIEDRICH	
	Examiner Michael H. Wilson	Art Unit 4145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060913, 20050609</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claim 4, “the meta position” lacks antecedent basis, as there are multiple meta positions on a biphenyl compound. It is unclear if the claim requires a specific meta position to be substituted or if any meta position may be substituted. A suggested correction is to amend “the meta position” to “a meta position.” Appropriate correction is required.

In regards to claim 5 “a biphenyl multiply substituted in the meta position” renders the claim indefinite, multiple substituents cannot be placed on a single meta position. Suggested correction is to amend “a biphenyl multiply substituted in the meta position” to “a biphenyl substituted at multiple meta positions” or “biphenyl substituted at more than one meta position.” Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Ise et al. (US 2002/0028329 A1).

Regarding claim 1 Ise discloses an organic electroluminescent component having a layer composite, which comprises

- a substrate layer [0180],
- a first transparent electrode layer ([0010] and [0172]),
- a mixing layer (light emitting layer [0009]) having
 - a matrix of a conductive organic material with one or more singlet states and one or more triplet states, selected from the group: p-conductive and n-conductive materials ([0010]),
 - in this matrix, a light-emitting material which comprises a metallo-organic complex compound with an emissive triplet state [0149], and
- a second electrode [0010],

-wherein the lowest-energy triplet state of the conductive organic material is higher than the emissive triplet state of the metallo-organic complex compound by an energy difference E_t . ([00029] and [0010])

Regarding claim 2 Ise discloses an organic electroluminescent device as set forth above and further characterized in that the energy difference is $E_t \geq 2000 \text{ cm}^{-1}$ (see chart [0195] examples 2, 4-6, and 8-10; Ise measured the T_1 energy level of both host and light-emitting material in kcal/mol - [0032], and examples 2 [0181], 4 [0183], 5 [0184], 6 [0185], 8 [0187], 9 [0188], and 10 [0189]).

Regarding claim 3 Ise discloses the device as set forth above and characterized in that the conductive organic material comprises a structural element which is a benzene ring substituted with an organic substituent R- in the meta position ([0181] and multiple compounds exemplified in [0119]).

Regarding claims 4 and 5 Ise discloses the device as set forth above and characterized in that:

- the conductive organic material comprises a structural element which is a biphenyl substituted with an organic substituent R- in the meta position (exemplified compounds: [0120] B-1, B-3 to B-6, B-16, B-24, B-25, B-30, B-50, B-51, B-54; [0128] C-32; [0135] D-32; and [0137] D-52);

- the structural element which is a biphenyl multiply substituted in the meta position (exemplified compounds: [0120] B-1, B-3 to B-6, B-16, B-24, B-25, B-30, B-50, B-51, B-54; [0128] C-32; [0135] D-32; and [0137] D-52).

Regarding claim 6 Ise discloses An organic electroluminescent device as set forth above, characterized in that the conductive organic material is selected from the group: molecularly doped organic polymers, semi-conducting conjugated polymers, intrinsically conductive organic polymers, oligomers, and conductive organic monomers, and mixtures thereof (general formula given in [0012]-0013] and [0045] with a multitude of examples in [0119]-[0139]).

Regarding claim 7 Ise discloses an organic electroluminescent device as set forth above and characterized in that the substituent R- is selected from the group of organic substituents: phenyl and derivatives, arylamine and derivatives, oxadiazole and derivatives, triazole and derivatives, triphenylamine and derivatives, carbazole and derivatives, oxadiazoles and derivatives, triazoles and derivatives, triazines and derivatives, fluorenes and derivatives, hexaphenylbenzene and derivatives, phenanthroline and derivatives, pyridine and derivatives ([0034]-[0035] with explicit examples in [0119] which including the use of carbazole, diazoles, triazole, pyrroles, substituted phenyl, oxazole, and thiazole substituents).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael H. Wilson whose telephone number is (571) 270-3882. The examiner can normally be reached on Monday-Thursday, 7:30-5:00 PM EST, alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on (571) 272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MHW

/Basia Ridley/
Supervisory Patent Examiner, Art Unit 4145